

Work Order ID 53958

November 23, 2009 3:35:04 PM



Page 1

Item ID: D3957-4
 Revision ID: A
 Item Name: Hinge, Door RH Lower
 Start Date: 23/11/2009 Start Qty: 8.00
 Required Date: 02/12/2009 Req'd Qty: 8.00
 Reference:

Accept



Setup Start



Stop



Cust Item ID:

Customer:

Approvals: Process Plan: RP Date: 09-11-22 Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3957	A

100		0.00							
	Bandsaw								
Jeaspa Bandsaw	Memo cut blank to 3.200" long	0.00							

DT 09/11/24

8

110		0.00							
	HAAS 1								
HAAS CNC vertical machine #1	Memo 1-Machine as per Folio FA839 FOLIO REV: <u>A</u> DWG REV: <u>A</u> 2-FINISH TAPPING TO FULL DEPTH BY HAND AS PER DWG 3-DEBURR AS PER DWG	0.00							

mt 09/11/26

8 4

P70

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____


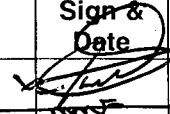
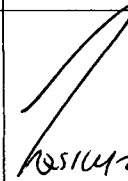
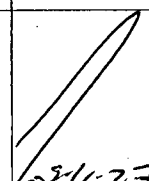
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3957-4 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR: <u>53958</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07/11/26	110	Thickness .250 is machine cracked because Tool 3 was machining to match material in 1 passe and it made the parts move. 4 part affected R.C. program Recd		Mod program scrap and replace <u>104741</u>	 07/11/26	Y.A 09/11/27		

NOTE: Date & initial all entries

Work Order ID 53958

November 23, 2009 3:35:04 PM



Page 2

Item ID:	D3957-4	Accept		Setup	Start	
Revision ID:	A				Stop	
Item Name:	Hinge, Door RH Lower					
Start Date:	23/11/2009	Start Qty:	8.00	Cust Item ID:		
Required Date:	02/12/2009	Req'd Qty:	8.00	Customer:		
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 	QC2- Inspect parts off machine FAI/FAIB	0.00				8	4		
QC Quality Control	Memo	0.00		mf 07/11/26					
130 	QC8- Inspect parts - second check	0.00				8	4		
QC Quality Control	Memo	0.00		N.A 09/11/27					
140 	Chemical Conversion Coat per QSI005 4.1	0.00				28			
HandFinish Hand Finishing	Memo	0.00		MO 09/11/20					

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			






NOTE: Date & initial all entries



Work Order ID 53958




November 23, 2009 3:35:04 PM



Page 3

Item ID: D3957-4 Accept  Setup Start 
Revision ID: A Stop 
Item Name: Hinge, Door RH Lower
Start Date: 23/11/2009 Start Qty: 8.00  Cust Item ID:
Required Date: 02/12/2009 Req'd Qty: 8.00  Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start 
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150  Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum M11248 START 1:40 QVON 3:00 FINISH 2:15 Memo MASK THREADED HOLE	0.00 0.00	BK	02-11-30		8			
160  QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				8x			
170  Packaging Packaging	Identify as per dwg & Stock Location: B52927 Memo	0.00 0.00				8x			

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

November 23, 2009 3:35:04 PM



Accept

**Setup Start**

Stop



Start Date: 23/11/2009 **Start Qty:** 8.00

**Cust Item ID:**

Required Date: 02/12/2009 **Req'd Qty:** 8.00



Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



**Insp.
Stamp**

QC21- Final Inspection - Work Order Release

0.00



OC

Memo

0.00

Quality Control

09/12/01 *MF*
09-12-01

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

November 23, 2009 3:35:11 PM

Page 1

Work Order ID: 53958



Parent Item: D3957-4A-PRELIM



Parent Item Name: Hinge, Door RH Lower

Start Date: 23/11/2009

Required Date: 02/12/2009

Comments:

Start Qty: 8.00

Required Qty: 8.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bis. Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M6061T6B0.750X03.00 0		Purchased	No			100	f	57.1862	2.2400			



6061-T6 Bar .750 x 3.00

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

MAT

57.1862

104741

25.9362

14252

12

15211

19.25

2.2400

DI 12/11/24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	
Description: Hinge, Door LH Lower		Part Number:	D3957
Inspection Dwg: D3957 Rev: A		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

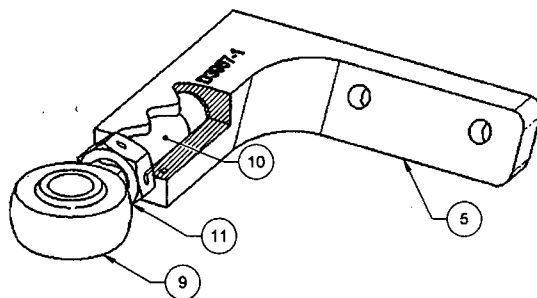
☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.69	+/-0.030	.68	✓			
0.281	+/-0.010	.279	✓			
0.281	+/-0.010	.280	✓			
3.00	+/-0.030	3.00	✓			
R0.13	+/-0.030	R.13	✓			
0.563	+/-0.010	.563	✓			
1.25	+/-0.030	1.255	✓			
1.93	+/-0.030	1.92	✓			
107°	+/-0.5°	107°	✓			
0.250	+/-0.010	.250	✓			
Ø0.203	+0.005/-0.001	.206	✓			
1.170	+/-0.010	1.170	✓			
0.39	+/-0.030	.38	✓			
0.33	+/-0.030	.33	✓			
Ø0.063	+0.004/-0.001	Ø.064	✓			
0.125	+/-0.010	.122	✓			
0.094	+/-0.010	.096	✓			
0.12	+/-0.030	.15	✓			
R0.50	+/-0.030	R.500				

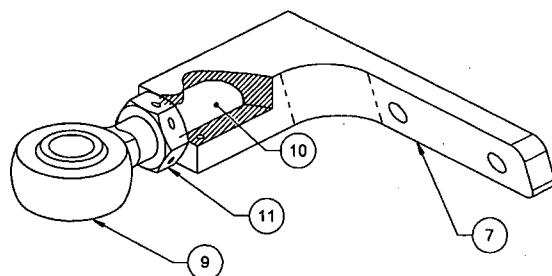
Measured by: <i>mmf</i>	Audited by: <i>H.A</i>	Prototype Approval:	N/A
Date: 09/11/26	Date: 09/11/27	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	09.11.13	New Issue	KJ	<i>[Signature]</i>

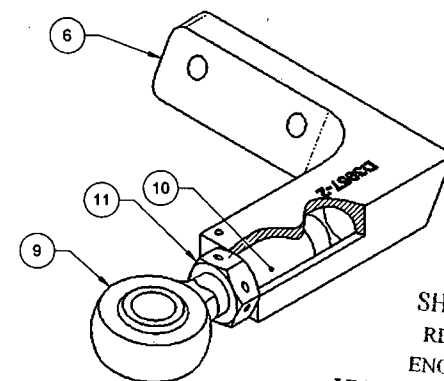
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2		X			D3957-042	HINGE ASSEMBLY, DOOR RH UPPER
3			X		D3957-043	HINGE ASSEMBLY, DOOR LH LOWER
4				X	D3957-044	HINGE ASSEMBLY, DOOR RH LOWER
5	1				D3957-1	HINGE, DOOR LH UPPER
6		1			D3957-2	HINGE, DOOR RH UPPER
7			1		D3957-3	HINGE, DOOR LH LOWER
8				1	D3957-4	HINGE, DOOR RH LOWER
9	1	1	1	1	D3518-3	ROD END
10	1	1	1	1	MS124818	HELICOIL, 3/8-24 UNF
11	1	1	1	1	NAS509-6	NUT



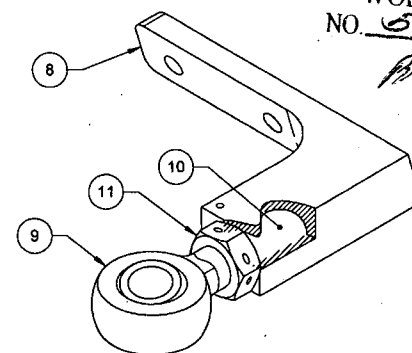
D3957-041 HINGE ASSY, DOOR LH UPPER



D3957-043 HINGE ASSY, DOOR LH LOWER



D3957-042 HINGE ASSY, DOOR RH UPPER



D3957-044 HINGE ASSY, DOOR RH LOWER

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK CENTER
NO. 63953
PC 09-11-28

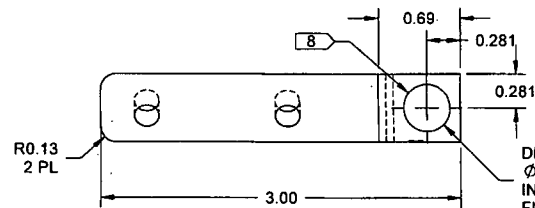
RELEASED
2009-10-08
JWP

A	NEW ISSUE	09.09.03
REV.	DESCRIPTION	BY DATE
DESIGN		
DRAWN		
CHECKED		
MFG. APPR.		
APPROVED		
DE APPR.		
DATE	09.09.03	

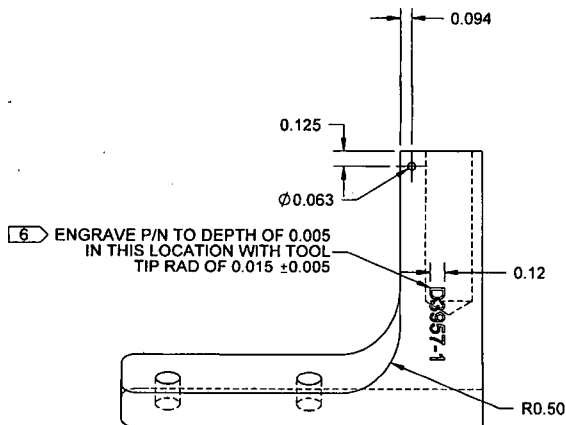
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D3957	REV. A
TITLE HINGE	SHEET 1 OF 5
SCALE NTS	

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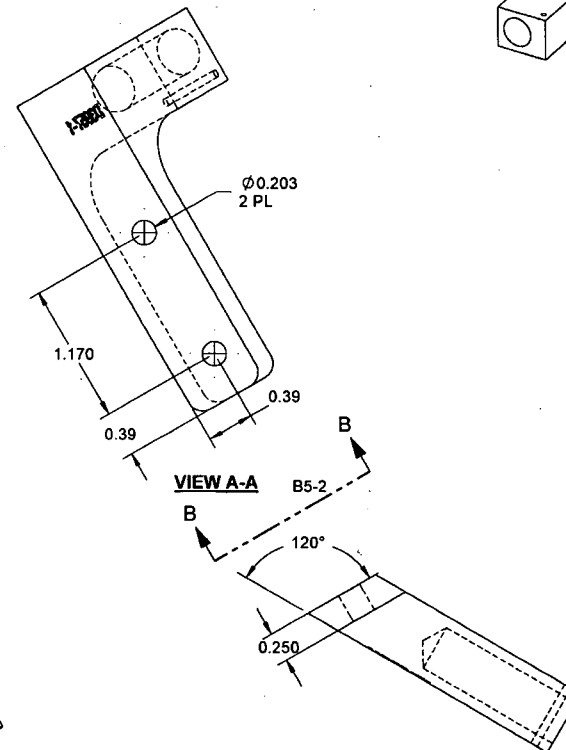
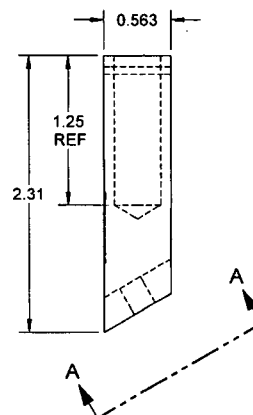
WLO 53958



DRILL AND TAP FOR 3/8-24 HELICAL INSERT
 $\phi 0.391$ X 1.25 DP
 INSTALL HELICOIL MS124818
 FLUSH WITH SURFACE



6 ENGRAVE P/N TO DEPTH OF 0.005
 IN THIS LOCATION WITH TOOL
 TIP RAD OF 0.015 \pm 0.005



VIEW B-B







D3957-1 HINGE, DOOR LH UPPER

NOTES:

- 1) MATERIAL: 6061-T6 (6061-T651/T6510/T6511/T62) ALUMINUM BAR
 PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR
 PER AMS-QQ-A-200/8 (OR AMS 4160)
 REF DART SPEC M6061T6B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
 POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE P/N AS SHOWN
- 7) WEIGHT: 0.10 lbs
- 8) MASK HOLE PRIOR TO POWDER COAT

C3-2

RELEASE
 2009-10-08

DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN				
CHECKED			DRAWING NO.	REV. A
MFG. APPR.			D3957	SHEET 2 OF 5
APPROVED			TITLE	SCALE
DE APPR.			HINGE	NTS
DATE	09.09.03	COPYRIGHT © 2009 BY DART AEROSPACE LTD		
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W/0 53938

R0.13
2 PL

8

0.69
0.281
0.281

0.094

0.125

Ø0.063

6 ENGRAVE P/N TO DEPTH OF 0.005
IN THIS LOCATION WITH TOOL
TIP RAD OF 0.015 ±0.005

0.12

DRILL AND TAP FOR 3/8-24 HELICAL INSERT
Ø0.391 X 1.25 DP
INSTALL HELICOIL MS124818
FLUSH WITH SURFACE

0.563
1.25 REF
2.31

Ø0.203
2 PL

1.170

0.39

VIEW C-C B5-3

120°

0.250

VIEW D-D

C3-3

D3957-2 HINGE, DOOR RH UPPER

RELEASED
2009-10-08

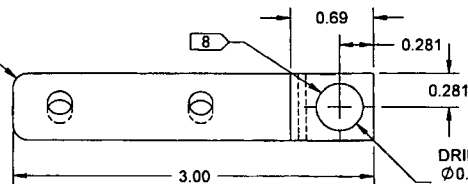
NOTES:

- 1) MATERIAL: 6061-T6 (6061-T651/T6510/T6511/T62) ALUMINUM BAR
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR
PER AMS-QQ-A-200/8 (OR AMS 4160)
REF DART SPEC M6061T6B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE P/N AS SHOWN
- 7) WEIGHT: 0.10 lbs
- 8) MASK HOLE PRIOR TO POWDER COAT

DESIGN	AS	DART AEROSPACE LTD	
DRAWN	AS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO.	REV. A
MFG. APPR.	21	D3957	SHEET 3 OF 5
APPROVED	14	TITLE	SCALE
DE APPR.	31	HINGE	NTS
DATE	09.09.03	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
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WLO 53958

R0.13
2 PL

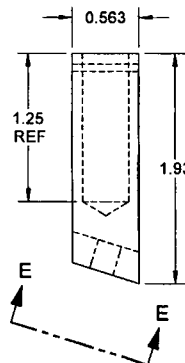
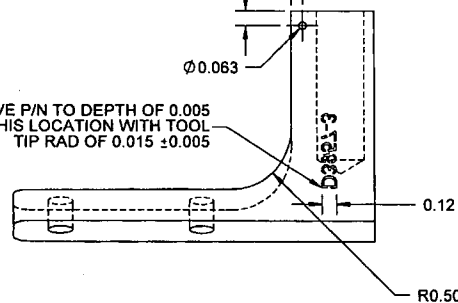


DRILL AND TAP FOR 3/8-24 HELICAL INSERT
Ø0.391 X 1.25 DP
INSTALL HELICOIL MS124818
FLUSH WITH SURFACE

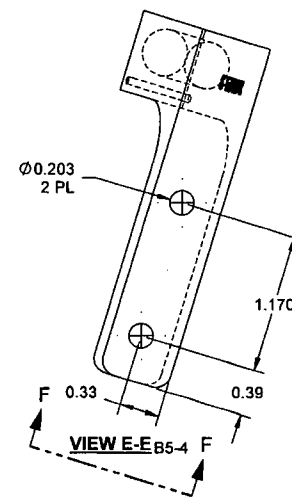
0.125 0.094

Ø0.063

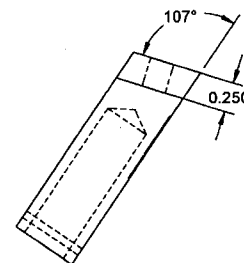
6 ENGRAVE P/N TO DEPTH OF 0.005
IN THIS LOCATION WITH TOOL
TIP RAD OF 0.015 ±0.005



Ø0.203
2 PL



VIEW E-E B5-4 F









VIEW F-F C3-4

D3957-3 HINGE, DOOR LH LOWER

RELEASED
2009-10-08

NOTES:

- 1) MATERIAL: 6061-T6 (6061-T651/T6510/T6511/T62) ALUMINUM BAR
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR
PER AMS-QQ-A-200/8 (OR AMS 4160)
REF DART SPEC M6061T6B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE P/N AS SHOWN
- 7) WEIGHT: 0.09 lbs
- 8) MASK HOLE PRIOR TO POWDER COAT

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3957	SHEET 4 OF 5
APPROVED		TITLE	SCALE
DE APPR.		HINGE	NTS
DATE	09.09.03	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
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8

7

6

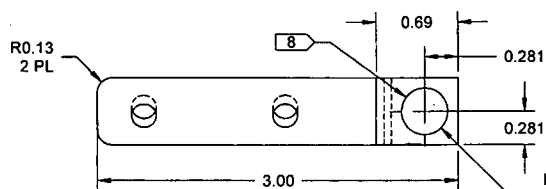
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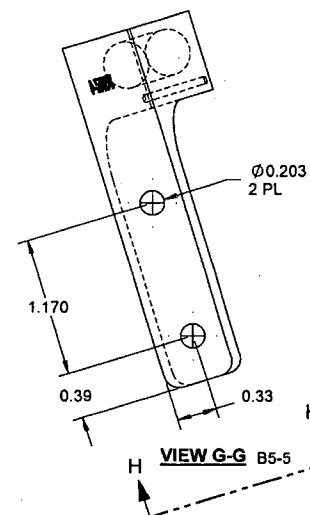
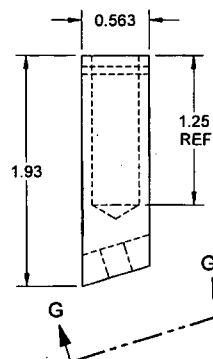
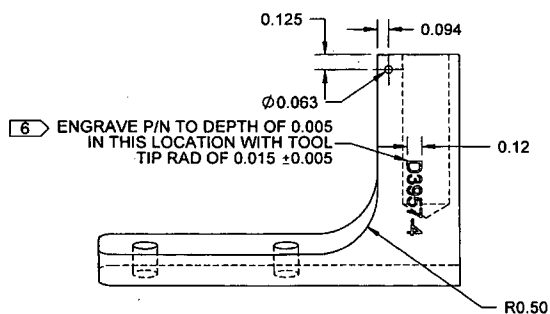
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2

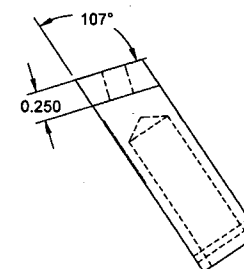
u10 53908



DRILL AND TAP FOR 3/8-24 HELICAL INSERT
 $\varnothing 0.391 \times 1.25$ DP
 INSTALL HELICOIL MS124818
 FLUSH WITH SURFACE



VIEW G-G B5-5



VIEW H-H C3-5

D3957-4 HINGE, DOOR RH LOWER

NOTES:

- 1) MATERIAL: 6061-T6 (6061-T651/T6510/T6511/T62) ALUMINUM BAR
 PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR
 PER AMS-QQ-A-200/8 (OR AMS 4160)
 REF DART SPEC M6061T6B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
 POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE P/N AS SHOWN
- 7) WEIGHT: 0.09 lbs
- 8) MASK HOLE PRIOR TO POWDER COAT

RELEASED
 2009-10-08

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3957	SHEET 5 OF 5
APPROVED		TITLE	SCALE
DE APPR.		HINGE	NTS
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